

Bay Area Air Quality Management District

939 Ellis Street
San Francisco, CA 94109
(415) 771-6000

Final

MAJOR FACILITY REVIEW PERMIT

Issued To:
Calpine Gilroy Cogen, L. P.
Facility #B1180

Facility Address:
1400 Pacheco Pass Highway
Gilroy, CA 95020

Mailing Address:
P.O. Box 1764
Gilroy, CA 95021

Responsible Official
Larry Krumland, Vice-President,
(408) 792-1234

Facility Contact
Brian Martin
(408) 847-5328

Type of Facility: Cogeneration Facility
Primary SIC: 4911
Product: Electricity

BAAQMD Permit Division Contact:
Brenda Cabral

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Ellen Garvey
Ellen Garvey, Air Pollution Control Officer

December 18, 1998
Date

TABLE OF CONTENTS

I. STANDARD CONDITIONS	1
II. EQUIPMENT LIST	5
A. PERMITTED SOURCE LIST	5
B. ABATEMENT DEVICE LIST	5
III. GENERALLY APPLICABLE REQUIREMENTS	7
IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS	9
V. SCHEDULE OF COMPLIANCE	17
VI. PERMIT CONDITIONS	17
A. SOURCE-SPECIFIC PERMIT CONDITIONS	17
VII. APPLICABLE EMISSION LIMITS & COMPLIANCE MONITORING REQUIREMENTS	28
VIII. TEST METHODS	38
IX. PERMIT SHIELD	41
A. NON-APPLICABLE REQUIREMENTS	41
B. SUBSUMED REQUIREMENTS	43
X. GLOSSARY	45
XI. APPENDIX A - APPLICABLE STATE IMPLEMENTATION PLAN	49

I. STANDARD CONDITIONS

A. Administrative Requirements

The permit holder shall comply with all applicable requirements in the following regulations:

BAAQMD Regulation 1 - General Provisions and Definitions

(as amended by the District Board on 11/3/93);

SIP Regulation 1 - General Provisions and Definitions

(as approved by EPA through 11/10/82);

BAAQMD Regulation 2, Rule 1 - Permits, General Requirements

(as amended by the District Board on 6/7/95);

SIP Regulation 2, Rule 1 - Permits, General Requirements

(as approved by EPA through 6/23/95);

BAAQMD Regulation 2, Rule 2 - Permits, New Source Review

(as amended by the District Board on 6/7/95);

SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration

(as approved by EPA through 10/19/84); and

BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking

(as amended by the District Board on 6/15/94).

B. Conditions to Implement Regulation 2, Rule 6, Major Facility Review

1. This Major Facility Review Permit expires on May 11, 2003. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than November 11, 2002 and no earlier than May 11, 2002. **If a complete application for renewal has not been submitted in accordance with these deadlines, the facility may not operate after May 11, 2003.** (Regulation 2-6-307, 404.2, & 409.6; MOP Volume II, Part 3, §4.2)
2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (Regulation 2-6-307; MOP Volume II, Part 3, §4.11)
3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)
4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)
5. The filing of a request by the facility for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (Regulation 2-6-

I. Standard Conditions (continued)

409.7; MOP Volume II, Part 3, §4.11)

6. This permit does not convey any property rights of any sort, nor any exclusive privilege. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
7. The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. (Regulation 1-441, Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
8. Any records required to be maintained pursuant to this permit which the permittee considers to contain proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District Administrative Code. (Regulation 2-6-419; MOP Volume II, Part 3, §4.11)
9. Proprietary or trade secret information provided to EPA will be subject to the requirements of 40 CFR Part 2, Subpart B - Public Information, Confidentiality of Business Information. (40 CFR Part 2)
10. The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions for the time period stated and is included only as one means of determining applicable requirements for emission sources. It does not establish, or constitute a basis for establishing, any new emission limitations. (MOP Volume II, Part 3, §4.11)

C. Requirement to Pay Fees

The permit holder shall pay annual fees in accordance with District Regulation 3, including Schedule P. (Regulation 2-6-402 & 409.13, Regulation 3; MOP Volume II, Part 3, §4.12)

D. Inspection and Entry

Access to Facility: The permit holder shall provide reasonable access to the facility and equipment which is subject to this permit to the APCO and/or to his or her designee. (Regulation 1-440, Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

E. Records

Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date of entry. (Regulation 2-6-501, Regulation 3; MOP Volume II, Part 3, §4.7)

F. Monitoring Reports

All required monitoring reports must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting. All instances of non-compliance shall be clearly identified in these reports. The reports shall be

I. Standard Conditions (continued)

certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. The reports shall be sent to the following address:

Director of Compliance and Enforcement
939 Ellis Street
San Francisco, CA 94109
Attn: Title V Reports

(Regulation 2-6-502, Regulation 3; MOP Volume II, Part 3, §4.7)

G. Compliance Certification

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other specific information required by the permit. The permit holder may satisfy this requirement through submittal of District-generated Compliance Certification forms. The certification should be directed to the District's Compliance and Enforcement Division at the address above, and a copy of the certification should be sent to the Environmental Protection Agency at the following address:

Director of the Air Division
USEPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105
Attention: Air-3

(MOP Volume II, Part 3, §4.5 and 4.15)

H. Emergency Provisions

1. The permit holder may seek relief from enforcement action in the event of a breakdown, as defined by Regulation 1-208 of the District's Rules and Regulations, by following the procedures contained in Regulations 1-431 and 1-432. The District will thereafter determine whether breakdown relief will be granted in accordance with Regulation 1-433. (MOP Volume II, Part 3, §4.8)
2. The permit holder may seek relief from enforcement action for a violation of any of the terms and conditions of this permit caused by conditions beyond the permit holder's reasonable control by applying to the District's Hearing Board for a variance pursuant to Health and Safety Code Section 42350. The Hearing Board will determine after notice

I. Standard Conditions (continued)

and hearing whether variance relief should be granted in accordance with the procedures and standards set forth in Health and Safety Code Section 42350 et seq. Any variance granted by the Hearing Board from any term or condition of this permit which lasts longer than 90 days will be subject to EPA approval. (MOP Volume II, Part 3, §4.8)

3. Notwithstanding the foregoing, the granting by the District of breakdown relief or the issuance by the Hearing Board of a variance will not provide relief from federal enforcement unless the Major Facility Review Permit has been modified pursuant to Regulation 2, Rule 6. (MOP Volume II, Part 3, §4.8)

I. Severability

In the event that any provision of this permit is invalidated by a court or tribunal of competent jurisdiction, or by the Administrator of the EPA, all remaining portions of the permit shall remain in full force and effect. (Regulation 2-6-409.5; MOP Volume II, Part 3, §4.10)

II. EQUIPMENT LIST

A. Permitted Source List

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits.

Table II-A

S-#	Description	Make or Type	Model	Capacity
S-100	Gas Turbine Generator, Natural Gas, Fuel Oil	General Electric	Frame 7	87 MW, 938 MM Btu/hr
S-101	Auxiliary Boiler, Natural Gas, Fuel Oil	Nebraska	NSE68	104 MM Btu/hr (natural gas) 101 MM Btu/hr (fuel oil)
S-102	Auxiliary Boiler, Natural Gas, Fuel Oil	Nebraska	NSE68	104 MM Btu/hr (natural gas) 101 MM Btu/hr (fuel oil)

B. Abatement Device List

Table II-B

A-#	Description	Source(s) Controlle d	Applicable Requirement	Operating Parameters	Limit or Efficiency
A-100	Catalytic Afterburner	S-100	Cond #2780 part 3	Oxidizing Catalyst shall operate during all periods of turbine operation except during start-up, which will not exceed one-half hour for warm-start, or one hour for cold start.	80% CO destruction

Facility Name: [ENTER NAME]
Permit for Facility #: [ENTER SITE ID]
Expiration Date: [ENTER DATE]
ID: [INSERT INITIALS]

II. Equipment List (continued)

B. Abatement Device List (continued)

III. GENERALLY APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. These requirements apply in a general manner to the facility and/or to sources exempt from the requirement to obtain a District Permit to Operate. The District has determined that these requirements would not be violated under normal, routine operations, and that no additional periodic monitoring or reporting to demonstrate compliance is warranted. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more sources, the requirement and the source are also included in Section IV, Source-Specific Applicable Requirements, of this permit.

The dates in parenthesis in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s):
 The date(s) of adoption or most recent amendment of the regulation by the District Board
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP:
 The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

Where an applicable requirement is a SIP requirement, the full language of the SIP requirement is included in Appendix A of this permit.

NOTE:

There are differences between the current BAAQMD rule and the version of the rule in the SIP. For specific information, contact the District's Rule Development Section of the Enforcement Division. All sources must comply with both versions of the rule until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

Table III

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 1	General Provisions and Definitions (11/3/93)	N
SIP Regulation 1	General Provisions and Definitions (11/10/82)	Y
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (8/06/90)	Y
BAAQMD Regulation 5	Open Burning (11/2/94)	N
SIP Regulation 5	Open Burning (5/3/84)	Y
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)	N
SIP Regulation 6	Particulate matter and Visible Emissions (5/3/84)	Y

III. Generally Applicable Requirements (continued)

Table III (continued)

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (12/20/95)	Y
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	N
SIP Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (3/22/95)	Y
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (12/20/95)	N
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (12/4/91)	Y
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	Y
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (9/2/81)	Y
EPA Regulation 40 CFR 82	Protection of Stratospheric Ozone (2/21/95)	
Subpart F, 40 CFR 82.156	Leak Repair	Y
Subpart F, 40 CFR 82.161	Certification of Technicians	Y
Subpart F, 40 CFR 82.166	Records of Refrigerant	Y

IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. The requirements cited in the following tables apply in a specific manner to the indicated source(s).

The dates in parenthesis in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s):
 The date(s) of adoption or most recent amendment of the regulation by the District Board
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP:
 The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. Additionally, where an applicable requirement is a SIP requirement, the full language of the SIP requirement is included in Appendix A of this permit. All other text may be found in the regulations themselves.

Table IV-A
S100 - GAS TURBINE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	General Provisions and Definitions (11/3/93)		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-522.1	Plans and Specifications	Y	
1-522.2	Installation Scheduling	Y	
1-522.3	Performance Testing	Y	
1-522.4	Periods of Inoperation Greater Than 24 Hours	Y	
1-522.5	Calibration	Y	
1-522.6	Accuracy	Y	
1-522.7	Excesses	Y	
1-522.8	Monthly Reports	Y	

IV. Applicable Requirements (continued)

Table IV-A (continued)
S100 – GAS TURBINE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
1-522.9	Records	Y	
1-522.10	Monitors Required by Sections 1-521 or 2-1-403	Y	
1-602	Area and Continuous Emission Monitoring Requirements	N	
SIP Regulation 1	PROVISIONS NO LONGER IN CURRENT RULE General Provisions and Definitions (11/10/82)		
1-541	Emission Excesses	Y ¹	
1-602	Area and Continuous Emission Monitoring Requirements	Y ¹	
BAAQMD Regulation 2, Rule 1	Regulation 2, Rule 1 – Permits, General Requirements (6/7/95)		
2-1-501	Monitors	N	
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)		
6-301	Ringelmann Number 1 Limitation	N	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
SIP Regulation 6	PROVISIONS NO LONGER IN CURRENT RULE Particulate Matter and Visible Emissions (6/16/83)		
6-301	Ringelmann Number 1 Limitation (9/5/79)	Y ¹	
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)		
9-1-301	Limitations on Ground Level Concentrations	N	
9-1-302	General Emission Limitations	Y	
9-1-304	Fuel Burning (Liquid and Solid Fuels)	Y	
SIP Regulation 9, Rule 1	PROVISIONS NO LONGER IN CURRENT RULE Inorganic Gaseous Pollutants – Sulfur Dioxide (5/3/84)		
9-1-301	Limitations on Ground Level Concentrations	Y ¹	

IV. Applicable Requirements (continued)

Table IV-A (continued)
S100 – GAS TURBINE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 9, Rule 9	Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (9/21/94)		
9-9-113	Exemption – Inspection/Maintenance	Y	
9-9-114	Exemption – Start-Up/Shutdown	Y	
9-9-305	Emission Limits, Existing Low-NOx Turbines	Y	
9-9-401	Certification, Efficiency	Y	
9-9-501	Monitoring and recordkeeping requirements	Y	
BAAQMD Manual of Procedures, Volume V	Continuous Emission Monitoring Policy and Procedures (1/20/82)	Y	
40 CFR 60	Standards of Performance for New Stationary Sources (12/23/71)	Y	
Subpart A	General Provisions	Y	
60.4(b)	Reports to EPA and District	Y	
60.7(a)	Written notification	Y	
60.7(b)	Records	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11(a)	Compliance with standards and maintenance requirements	Y	
60.11(d)	Minimizing emissions	Y	
60.12	Circumvention	Y	
60.19	General notification and reporting requirements	Y	
Subpart GG	Standards of Performance for Stationary Gas Turbines (1/27/82)		
60.332 (a)(1)	NOx limit	Y	
60.333	Performance Standards, SO ₂	Y	
60.335	Test Methods and Procedures	Y	
BAAQMD Cond# 2780			
part 1	NOX Limit (basis: BACT, PSD)	Y	
part 3a	CO control requirement (basis: BACT)	Y	
part 3b	Annual source test	Y	
part 5	Fuel oil sulfur limit (basis: BACT)	Y	
part 6	NMHC/TSP Limit (basis: Cumulative increase)	Y	
part 6a	Particulate monitoring	Y	

IV. Applicable Requirements (continued)

Table IV-A (continued)
S100 – GAS TURBINE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 6b	Particulate recordkeeping	Y	
part 7	Natural Gas Curtailment Requirement (basis: BACT, PSD)	Y	
part 8	Steam Injection (basis: BACT)	Y	
part 10a	SO2 Limit (basis: BACT)	Y	
part 10b	SO2 monitoring during fuel oil combustion	Y	
part 11	CEM requirement (basis: PSD, BACT)	Y	
part 13a	Stack height (basis: PSD)	Y	
part 13b	Sampling ports (basis: BAAQMD 1-501)	Y	
part 14	Recordkeeping (basis: PSD, BACT)	Y	
part 15	Fuel oil/NOx limit demonstration (basis: BACT)	Y	
part 17	Fuel Usage limit (basis: Cumulative increase)	Y	
part 18	Hours of Operation (basis: Cumulative increase)	Y	
PSD Permit			
III	Facilities Operation	Y	
V	Right to Entry	Y	
VI	Transfer of Ownership	Y	
VII	Severability	Y	
VIII	Other Applicable Regulations	Y	
IX, C	Emission Limits for NOx	Y	
IX, D	Performance Tests	Y	
IX, E	Continuous Emission Monitoring	Y	
IX, F	Fuel Usage and Sulfur Content/Steam Injection	Y	
IX, G	New Source Performance Standards	Y	

¹ This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

IV. Applicable Requirements (continued)

Table IV-B
S101, S102 – BOILERS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	General Provisions and Definitions (11/3/93)		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-522.1	Plans and Specifications	Y	
1-522.2	Installation Scheduling	Y	
1-522.3	Performance Testing	Y	
1-522.4	Periods of Inoperation Greater Than 24 Hours	Y	
1-522.5	Calibration	Y	
1-522.6	Accuracy	Y	
1-522.7	Excesses	Y	
1-522.8	Monthly Reports	Y	
1-522.9	Records	Y	
1-602	Area and Continuous Emission Monitoring Requirements	Y	
SIP Regulation 1	PROVISIONS NO LONGER IN CURRENT RULE General Provisions and Definitions (11/10/82)		
1-541	Emission Excesses	Y ¹	
1-602	Area and Continuous Emission Monitoring Requirements	Y ¹	
BAAQMD Regulation 2, Rule 1	Regulation 2, Rule 1 - Permits, General Requirements (6/7/95)		
2-1-501	Monitors	N	
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)		
6-301	Ringelmann Number 1 Limitation	N	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	

IV. Applicable Requirements (continued)

Table IV-B (continued)
S101, S102 – BOILERS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
SIP Regulation 6	PROVISIONS NO LONGER IN CURRENT RULE Particulate Matter and Visible Emissions (6/16/83)		
6-301	Ringelmann Number 1 Limitation (9/5/79)	Y ¹	
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)		
9-1-301	Limitations on Ground Level Concentrations	N	
9-1-302	General Emission Limitations	Y	
9-1-304	Fuel Burning (Liquid and Solid Fuels)	Y	
SIP Regulation 9, Rule 1	PROVISIONS NO LONGER IN CURRENT RULE Inorganic Gaseous Pollutants - Sulfur Dioxide (5/3/84)		
9-1-301	Limitations on Ground Level Concentrations	Y ¹	
BAAQMD Regulation 9, Rule 7	Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (9/15/93)		
9-7-301	Emission Limits-Gaseous Fuel	Y	
9-7-301.1	Emission Limits-NOx	Y	
9-7-301.2	Emission Limits-CO	Y	
9-7-302	Emission Limits-Non-Gaseous Fuel	Y	
9-7-302.1	Emission Limits-NOx	Y	
9-7-302.2	Emission Limits-CO	Y	
9-7-303	Emission Limits-Gaseous Fuels-and Non-Gaseous Fuel	Y	
9-7-305	Natural Gas Curtailment-Non-Gaseous Fuel	Y	
9-7-305.1	Natural Gas Curtailment-Non-Gaseous Fuel: NOx limit	Y	
9-7-305.2	Natural Gas Curtailment-Non-Gaseous Fuel: CO limit	Y	
9-7-306	Equipment Testing Non-Gaseous Fuel	Y	
9-7-306.1	Emission Limits-NOx	Y	
9-7-306.2	Emission Limits-CO	Y	
9-7-306.3	Time limit	Y	
9-7-501	Combinations of Different Fuels	Y	
9-7-503	Records	Y	

IV. Applicable Requirements (continued)

Table IV-B (continued)
S101, S102 – BOILERS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
9-7-503.2	Records of natural gas curtailment	Y	
9-7-503.3	Records of equipment testing	Y	
9-7-503.4	Source test records	Y	
BAAQMD Manual of Procedures, Volume V	Continuous Emission Monitoring Policy and Procedures (1/20/82)		
40 CFR 60	Standards of Performance for New Stationary Sources (12/23/71)	Y	
Subpart A	General Provisions	Y	
60.4(b)	Reports to EPA and District	Y	
60.7(a)	Written notification	Y	
60.7(b)	Records	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11(a)	Compliance with standards and maintenance requirements	Y	
60.11(d)	Minimizing emissions	Y	
60.12	Circumvention	Y	
60.19	General notification and reporting requirements	Y	
Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (12/16/87)	Y	
60.40b (b)(3)	NOX limits (Not subject to SO2 and particulate limits)	Y	
60.44b (a)(1)(ii)	NOx limit applicable at all times	Y	
60.44b (a)(1)(ii)	Compliance: 24-hr day basis	Y	
BAAQMD Cond #2780			
Part 4	NOx limit (basis: PSD, BACT)	Y	
part 5	Fuel oil sulfur limit (basis: BACT)	Y	
part 7a	Natural Gas Curtailment Requirement (basis: BACT, PSD)	Y	
part 10a	SO ₂ Limit (basis: BACT)	Y	
part 10b	SO2 monitoring during fuel oil combustion	Y	
part 13b	Sampling ports (BAAQMD 1-501)	Y	

IV. Applicable Requirements (continued)

Table IV-B (continued)
S101, S102 – BOILERS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 14	Recordkeeping (basis: PSD, BACT)	Y	
PSD Permit			
III	Facilities Operation	Y	
VIII	Other Applicable Regulations	Y	
IX, C	Emission Limits for NOx	Y	
IX, D	Performance Tests	Y	
IX, F	Fuel Usage and Sulfur Content	Y	

¹ This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

V. SCHEDULE OF COMPLIANCE

The permit holder shall continue to comply with all applicable requirements cited in this permit. The permit holder shall also comply with applicable requirements that become effective during the term of this permit.

VI. PERMIT CONDITIONS

Any condition that is preceded by an asterisk is not federally enforceable.

A. Source-Specific Permit Conditions

Calpine Gilroy Cogen, L. P.
Facility #B1180

PERMIT CONDITIONS (amended August 29, 1987, June 27, 1989, September 13, 1990 [APPLICATION NO. 5140], and May, 1998 [Application #25841])

- 1a. Except as provided in condition 7, the oxides of nitrogen (NO_x) concentration in the gas turbine exhaust shall not exceed 25 ppm_{dv} at 15% oxygen averaged over any three-hour period whether firing natural gas or fuel oil. (BACT, PSD)
- 1b. This limit shall not apply during cold start-up, which is not to exceed four hours, or shut-down procedure, which is not to exceed two hours. However, for daily start-ups after a shut-down of twelve (12) hours or less, the start-up period shall be limited to one (1) hour. (BACT)
- 1c. During any mode of operation, the owner or operator shall inject steam for NO_x control at the turbine when steam of specified pressure and temperature is available. (BACT, PSD)
2. (deleted BAAQMD Title V application #25841)
- 3a. An oxidizing catalyst (A100) shall reduce CO emissions from the gas turbine (S100) by at least 80% (by weight), averaged over any three-hour period. The catalyst shall operate during all periods of turbine operation except during start-up, which shall not exceed one-half hour for warm start, or one hour for a cold start. Annual CO emissions shall not exceed 100 tons/year for the entire facility. Sampling ports for testing for compliance with this condition shall be maintained as approved by the District's Source Test Section. (6/27/89) (BACT)
- 3b. The owner or operator shall conduct an annual source test to ensure

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

compliance with the requirement to reduce carbon monoxide by 80% from the gas turbine, measuring the carbon monoxide

Condition #2780

For **S100 - GAS TURBINE,**

S101 AND S102, BOILERS

concentration before and after the catalyst. The owner or operator shall submit a protocol for the test to the District's Source Test Section for approval at least one month prior to the test. (Regulation 2-6-501)

4. Nitrogen oxide (NO_x) emissions from each auxiliary boiler (S-101, S-102) shall not exceed 40 ppm_{dv} at 3% oxygen averaged over any three-hour period. (PSD, BACT)
5. Any fuel oil fired (except as provided in condition #7) shall not exceed a maximum sulfur content of 0.12% (by weight). The owner or operator shall maintain records on the duration of fuel oil firing, the sulfur content, and in which operating sources fuel oil firing took place. All fuel receipts must be certified to 0.12% weight sulfur or less. (PSD, BACT)
6. Total emissions from the gas turbine (S-100) and auxiliary boilers (S-101, S-102) shall not exceed 25 ton/year TSP or 40 ton/yr NMHC. (Cumulative increase)
- 6a. As long as natural gas is burned exclusively at the turbine and boilers, particulate emissions shall not be monitored. Within 2 weeks of fuel oil use at S100, Turbine, or S101-S102, Boilers, the permit holder shall have source tests performed to measure TSP from the source or sources burning fuel oil. As a contingency measure, the permit holder shall submit a proposed test protocol to the Source Test group at the District within 3 months of issuance of this permit for approval. The permit holder shall notify the Source Test group at least one week prior to performing the test or tests. The test or tests shall form the basis for the emission factor or factors to be used when burning fuel oil. (basis: Regulation 2-6-501)
- 6b. After fuel oil firing has commenced, the permit holder shall keep records of fuel oil firing to determine whether the 25 tpy limit for TSP has been violated. The permit holder shall use these records to determine the TSP emissions on a rolling twelve month basis. In this case, the emission factors used for natural gas burning shall be:
Turbine: 2.5 lb/hr

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

Condition #2780

For **S100 - GAS TURBINE,**
S101 AND S102, BOILERS

Boilers: 5 lb/mmcf natural gas
(basis: Regulation 2-6-501)

7a. During periods of natural gas curtailment, the maximum sulfur content of the fuel oil burned shall not exceed 0.25% (by weight), provided that the gas turbine was being fired on natural gas prior to the curtailment.

7b. During such periods, the NOx emission limit in condition #1 shall not apply.

NOx will be controlled via steam injection at no less than the rate determined by the steam/fuel ratio specified for natural gas firing and no greater than the lesser of the rate determined by the manufacturers recommended maximum steam/fuel ratio or 83,000 lb/hr (at 59 F). (PSD, BACT)

8. The steam injection to control NOx emissions from the turbine shall be operated during all periods when injection steam is available at the specified pressure and temperature. (BACT)

9. Pursuant to the PSD permit, the owner or operator shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of steam injected to fuel fired in the turbine. (PSD, 2-1-403)

10a. The emissions of sulfur dioxide (SO2) shall not exceed 3087 lb/day from the entire facility, except under natural gas curtailment as stated in condition #7. (BACT)

10b. The daily SO2 limit shall not be monitored when the facility burns natural gas exclusively. When the facility burns fuel oil, and is not operating under natural gas curtailment, the SO2 limit shall be monitored by calculating the SO2 emitted using the following equation:

$$\text{lb SO}_2 \text{ emitted/day} = \\ (\text{fuel oil burned}) \times (\text{density fuel oil}) \times (\%S \text{ by weight}) \times (2.0 \text{ lb SO}_2/\text{lb S})$$

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

Condition #2780

For **S100 - GAS TURBINE,**
S101 AND S102, BOILERS

Fuel oil shall be measured in gal/day. Density shall be measured in lb/gal. The owner or operator may measure the density or use a default value of 7.20 lb/gal. The sulfur content shall be as certified by the supplier. The owner or operator shall calculate the SO₂ emitted on a daily basis when the facility burns fuel oil, unless the facility is under natural gas curtailment. In addition to the records required by Condition 6b, the following records shall be kept:

- sulfur content of the fuel by weight
- density of the fuel
- SO₂ emitted

(Regulation 2-6-501)

11. The owner or operator shall install, calibrate and operate District approved continuous in-stack emission monitors for nitrogen oxides, carbon monoxide, and either oxygen or carbon dioxide at the turbine and the boilers. (PSD, BACT, 2-1-403)
12. (deleted BAAQMD Title V application #25841)
- 13a. The exhaust stack from the gas turbine (P-100) shall be constructed to a height of at least 80 feet. (PSD)
- 13b. Sampling ports for testing for compliance with these conditions shall be maintained as approved by the District's Source Test Division. (BAAQMD 1-501)
14. All records associated with the above conditions shall be retained by the owner or operator, for at least five years, for review by the District and shall be supplied to the District upon request. The recording format of conditions #5, #9, and #17 shall be subject to the approval of the APCO. (PSD, BACT)
15. Prior to burning fuel oil as the primary fuel in the gas turbine, the owner or operator shall demonstrate to the satisfaction of the APCO, during an approved test period, that the "quiet combustor" is capable of meeting the emission requirements for condition #1. If

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

within six months of initial start-up of fuel oil as

Condition #2780

For **S100 - GAS TURBINE,**
S101 AND S102, BOILERS

a discretionary fuel, the applicant is unable to achieve the concentration limitation of 25 ppm, the applicant shall take action to install a selective catalytic reduction system, or another APCO approved equivalent control system capable of satisfying the emission limit in condition #1. (BACT)

16. (deleted BAAQMD Title V application #25841)
17. In order to assure that the offset trigger levels for NMHC (40 TPY) and the PSD modeling trigger level for TSP (25 TPY) are not exceeded, total fuel oil usage in the gas turbine (S-100) shall not exceed 0.55 million barrels/year, except as provided below: "If the owner or operator can demonstrate, through the use of District approved source test methods, that the mass emissions of NMHC exiting the catalytic converter are less than those used to establish the above barrel limitation, then that limit may be renegotiated." (Cumulative increase)
18. The auxiliary boilers (S-101, S-102) shall not operate simultaneously with the gas turbine more than a combined total of 28 boiler hours/day or 3950 boiler hours/year. The auxiliary boilers may operate any time during period of gas turbine outage. (9/13/90) (Cumulative increase)

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

Condition #14299

For **S100 - GAS TURBINE,**
S101 AND S102, BOILERS

1. All natural gas burned at sources S100, Gas Turbine, and S101-102, Boilers shall be PUC quality gas. (basis: 2-1-403)
-

Following are the PSD conditions imposed by EPA before construction in 1985.

For **S100 - GAS TURBINE,**
S101 AND S102, BOILERS

- I. (deleted BAAQMD Title V application #25841)
- II. (deleted BAAQMD Title V application #25841)
- III. Facilities Operation

All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this Approval to Construct/Modify shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. (PSD)

- IV. (deleted BAAQMD Title V application #25841)

V. Right to Entry

The Regional Administrator, the head of the State Air Pollution Control Agency, the head of the responsible local air pollution control agency, and/or their authorized representatives, upon the presentation of credentials, shall be permitted:

- A. to enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this Approval to Construct/Modify; and
- B. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Approval to Construct/Modify; and

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

PSD Conditions

For **S100 - GAS TURBINE,**
S101 AND S102, BOILERS

- C. to inspect any equipment, operation, or method required in this Approval to Construct/Modify; and
- D. to sample emissions from the source. (PSD)

VI. Transfer of Ownership

In the event of any changes in control or ownership of facilities to be constructed or modified, this Approval to Construct/Modify shall be binding on all subsequent owners and operators. The applicant shall notify the succeeding owner and operator of the existence of this Approval to Construct/Modify and its conditions by letter, a copy of which shall be forwarded to the State and local Air Pollution Control Agency. (PSD)

VII. Severability

The provisions of this Approval to Construct/Modify are severable, and, if any provision of this Approval to Construct/Modify is held invalid, the remainder of this Approval to Construct/Modify shall not be affected thereby. (PSD)

VIII. Other Applicable Regulations

The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable Federal, State and local air quality regulations. (PSD)

IX. Special Conditions

A. (deleted BAAQMD Title V application #25841)

B. Air Pollution Control Equipment

On and after the date of startup of the facility, the owner or operator shall install, continuously operate, and maintain a steam injection system to reduce emission of nitrogen oxides from the

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

gas turbine.

PSD Conditions

For **S100 - GAS TURBINE,**
S101 AND S102, BOILERS

C. Emission Limits for NOX

On and after the date of startup of the gas turbine, the owner or operator shall not discharge or cause the discharge into the atmosphere NOX in excess of 25 ppmv at 15% O₂ (3-hour average). (PSD)

This limit shall not apply during cold start-up, which is not to exceed four hours, or shut-down procedure, which is not to exceed two hours. However, for daily start-ups after a shut-down of twelve (12) hours or less, the start-up period shall be limited to one (1) hour.

On and after the date of startup of the auxiliary boilers, the owner or operator shall not discharge or cause the discharge into the atmosphere NOX in excess of 40 ppmv at 3% O₂ (3-hour average). (PSD)

D. Performance Tests

1. The owner or operator shall conduct performance tests for NOX and furnish the Bay Area Air Quality Management District and the EPA a written report of the results of such tests upon written request of EPA or the District. Any test for NOX shall be conducted at the maximum capacity of the facility being tested. (PSD)
2. Performance tests for the emissions of NO_x, shall be conducted and the results reported in accordance with the test method set forth in 40 CFR 60, Part 60.8 and Appendix A. Performance tests for the emission of NOX shall be conducted using EPA Methods 7 and 20. (PSD)

The EPA (Attn: A-3-3) shall be notified in writing at least 30 days prior to such tests to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. (PSD)

Such prior approval shall minimize the possibility of EPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

prior written approval from the EPA. (PSD)

PSD Conditions

For **S100 - GAS TURBINE,**
S101 AND S102, BOILERS

E. Continuous Emission Monitoring

1. Prior to the date of startup and thereafter, the owner or operator shall install, maintain and operate the following continuous monitoring systems in the heat recovery steam generator exhaust stack:

Continuous monitoring systems to measure stack gas NOX concentration, fuel usage, steam-to-fuel ratio, and either O2 or CO2 concentrations. The systems shall meet EPA monitoring performance specifications (40 CFR 60.13 and 40 CFR 60, Appendix B, Performance Specifications). (PSD)

2. The owner or operator shall maintain a file of all measurements, including continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurement, maintenance, reports and records. (PSD)
3. The owner or operator shall submit a written report of all excess emissions to EPA (Attn: A-3-3) for every calendar quarter. The report shall include the following:
 - a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions. (PSD)
 - b. Specific identification of each period of excess emissions that occurs during start-ups, shutdowns and malfunctions of the cogeneration gas turbine system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measures adopted shall also be reported. (PSD)
 - c. The date and time identifying each period during which the continuous

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

monitoring system was inoperative except for zero and span checks and
PSD Conditions
For **S100 - GAS TURBINE,**
S101 AND S102, BOILERS

the nature of the system repairs or adjustments. (PSD)

- d. When no excess emission have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report. (PSD)
 - e. Excess emissions shall be defined as any three-hour period during which the average emissions of NOX, as measured by the continuous monitoring system, exceeds the NOX maximum emission limits set forth in Conditions IX. C. (PSD)
4. Excess emission indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit. (PSD)

F. Fuel Usage and Sulfur Content

Any fuel oil fired (except as provided below) shall not exceed a maximum sulfur content 0.12% (by weight). The owner or operator shall maintain records on the duration of fuel oil firing, the sulfur content, and in which operating sources fuel oil firing took place. All fuel oil receipts must be certified to 0.12% weight sulfur or less except as provided below. (PSD)

During periods of natural gas curtailment, the maximum sulfur content of the fuel oil burned shall not exceed 0.25% (by weight), provided that the gas turbine was being fired on natural gas prior to the curtailment. (PSD)

During such periods, the gas turbine NOX emission limit in Special Condition C shall not apply; NOX shall be controlled via steam injection at no less than the rate determined by the steam/fuel ration specified for natural gas firing and no greater than the lesser of the ratio determined by the manufacturer recommended maximum steam/fuel ratio or 83,000 lb/hr at (59 degrees F). (PSD)

The owner or operator shall not consume more than 193,000 gallons of fuel oil per day or 24.4 million gallons per year when firing fuel oil. (PSD)

VI. Permit Conditions (continued)

A. Source-Specific Permit Conditions (continued)

PSD Conditions

For **S100 - GAS TURBINE,**
S101 AND S102, BOILERS

The owner or operator shall maintain records of the amount of fuel used in the gas turbine and auxiliary boilers, and the sulfur content of the fuel, in a permanent form suitable for inspection for EPA and the Bay Area AQMD. The record shall be maintained for at least five years following the date of its making. (PSD)

G. New Source Performance Standards

The proposed facility is subject to the Federal regulations entitled Standards of Performance for New Stationary Sources (40 CFR 60). The owner or operator shall meet all applicable requirements of Subparts A and GG of this regulation. (PSD)

VII. APPLICABLE EMISSION LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section has been included only to summarize the applicable emission limits contained in Section IV, Source-Specific Applicable Requirements, of this permit. The following tables show the relationship between each emission limit and the associated compliance monitoring provisions, if any. The monitoring frequency indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown, either annual (A), quarterly (Q), monthly (M), daily (D), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

Table VII-A
S100 - GAS TURBINE

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NO _x	BAAQMD 9-9-305	Y		Natural Gas ≤ 21.6 ppmv @ 15% O ₂ , dry, 3-hr avg Natural gas curtailment, ≤ 42 ppmv @ 15% O ₂ , dry 3-hr avg	BAAQMD 9-9-501	C	CEM
	BAAQMD Permit Condition 2780 part 1	Y		Natural Gas or Fuel Oil ≤ 25 ppmv @ 15% O ₂ , 3-hr avg	BAAQMD Permit Condition 2780, part 11	C	CEM
	PSD permit, part IX-C.	Y		Natural Gas or Fuel Oil ≤ 25 ppmv @ 15% O ₂ , dry 3-hr avg	PSD permit, part IX-D.	C	CEM
	PSD permit, part IX-C.	Y		Natural Gas or Fuel Oil ≤ 25 ppmv @ 15% O ₂ , dry 3-hr avg	PSD permit, part IX-E.	C	CEM

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-A (continued)
S100 - GAS TURBINE

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOX	NSPS, 40 CFR 60.332 (a)(1)	Y		95 ppmv, @ 15% O ₂ , dry	Monitoring requirement subsumed by PSD permit. See Permit Shield.	C	CEM
POC	BAAQMD Permit Condition 2780 part 6	Y		< 40 TPY NMHC for S100, S101, S102	BAAQMD Permit Condition 2780, part 17	C	fuel oil meter
SO ₂	BAAQMD 9-1-301	N		GLC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
	BAAQMD 9-1-302	Y		300 ppm (dry)		N	
	BAAQMD 9-1-304	Y		Sulfur content of fuel <0.5% by weight		N	
	SIP 9-1-301	Y		Federal std: GLC ¹ of 140 ppb, 24-hr average, once/yr and 30 ppb, annual average State std: GLC ¹ of 40 ppb, 24-hr average, and 250 ppb, 1 hr average		N	
	BAAQMD Permit Condition 2780 part 5	Y		Sulfur content of fuel <0.12% by weight	BAAQMD Permit Condition 2780 part 5	P/E	fuel certification by vendor

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-A (continued)
S100 - GAS TURBINE

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	BAAQMD Permit Condition 2780 part 7	Y		Sulfur content of fuel <0.25% by weight under natural gas curtailment	BAAQMD Permit Condition 2780 part 5	P/E	fuel certification by vendor
SO2	BAAQMD Permit Condition 2780 part 10	Y		< 3087 lb/day for entire facility, except under natural gas curtailment	BAAQMD Permit Condition 2780 part 10b	P/E (during use of fuel oil only)	fuel analysis and SO2 calculation
	PSD permit, part IX-F	Y		Sulfur content of fuel <0.12% by weight	PSD permit, part IX-F	P/E	fuel certification by vendor
	PSD permit, part IX-F	Y		Sulfur content of fuel <0.25% by weight under natural gas curtailment	PSD permit, part IX-F	P/E	fuel certification by vendor
	NSPS Subpart GG, 60.333 (a)	Y		Natural gas combustion: 0.015% (vol) @ 15% O ₂ (dry)	Monitoring requirement subsumed by Title V condition. See Permit Shield.	N	
	NSPS Subpart GG, 60.333 (b)	Y		Fuel oil combustion: 0.8 % sulfur in fuel by weight	Monitoring requirement subsumed by PSD condition. See Permit Shield.	N	
TSP	BAAQMD 6-301	N		Ringelmann No. 1		N	

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-A (continued)
S100 - GAS TURBINE

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD 6-310	Y		0.15 grain/dscf @ 6% O ₂		N	
	SIP 6-301	Y		Ringelmann No. 1		N	
TSP	BAAQMD Permit Condition 2780 part 6	Y		< 25 TPY total TSP for S100, S101, S102 (natural gas combustion)		N	
	BAAQMD Permit Condition 2780 part 6	Y		< 25 TPY total TSP for S100, S101, S102 (fuel oil combustion)	BAAQMD Permit Condition 2780 part 6a and 6b	P/E	initial source test, records
Fuel Oil usage	PSD permit, IX, F	Y		193,000 gal/day, 24.4 million gal/yr	PSD permit, IX, E	C	fuel oil meter, records
	BAAQMD Permit Condition 2780 part 17	Y		0.55 million barrels/yr	BAAQMD Permit Condition 2780 part 9	C	fuel oil meter, records
Carbon Monoxide	BAAQMD Permit Condition 2780 part 3a	Y		80% reduction by weight	BAAQMD Permit Condition 2780 part 3b	P/A	source test
	BAAQMD Permit Condition 2780 part 3a	Y		emissions < 100 tons/yr (entire facility)	BAAQMD Permit Condition 2780 part 11	C	CEM

¹ Ground Level Concentration

Facility Name: Calpine Gilroy Cogen, L.P.

Permit for Facility #: B1180

Expiration Date: May 11, 2003

ID: BFC

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-B
S101, S102 – BOILERS

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOX	BAAQM D 9-7-301.1	Y		30 ppmv @ 3% O ₂ , dry, 3-hr avg	BAAQMD Permit Condition 2780 part 11	C	CEM
	BAAQM D 9-7-302.1	Y		40 ppmv @ 3% O ₂ , dry, 3-hr avg	BAAQMD Permit Condition 2780 part 11	C	CEM
	BAAQM D 9-7-303	Y		Weighted average of 9-7-301.1 and 9-7-302.1, 3-hr avg	BAAQMD 9-7-501	C	Non-resettable fuel meters
	BAAQM D 9-7-305.1	Y		150 ppmv @ 3% O ₂ , dry, 3-hr avg		N	
	BAAQM D 9-7-306.1	Y		150 ppmv @ 3% O ₂ , dry, 3-hr avg		N	
	BAAQM D Permit Condition 2780 part 3	Y		40 ppmv @ 3% O ₂ , dry, , 3-hr avg	BAAQMD Permit Condition 2780 part 11	C	CEM
	PSD permit, part IX-C.	Y		Natural Gas or Fuel Oil ≤ 40 ppmv @ 3% O ₂ , dry, 3-hr avg	PSD permit, part IX-D.	C	CEM

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

	NSPS 40.60b (a)(1)(ii)	Y		0.2 lb/MM Btu, averaged over 24 hrs	Monitoring requirement subsumed by BACT cond. #2780, parts 3 and 11. See Permit Shield.	N	
--	------------------------------	---	--	---	---	---	--

Table VII-B (continued)
S101, S102 – BOILERS

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
CO	BAAQM D 9-7- 301.2	Y		400 ppmv @3% O ₂ , dry, 3-hr avg		N	
	BAAQM D 9-7- 302.2	Y		400 ppmv @3% O ₂ , dry, 3-hr avg		N	
CO	BAAQM D 9-7-303	Y		Weighted average of 9-7-301.1 and 9-7-302.1, 3-hr avg	BAAQMD 9-7-501	C	Non- resettable fuel meters
	BAAQM D 9-7- 305.2	Y		400 ppmv @3% O ₂ , dry, 3-hr avg	BAAQMD 9-7-503.2	N	records
	BAAQM D 9-7- 306.2	Y		400 ppmv @3% O ₂ , dry, 3-hr avg	BAAQMD 9-7-503.3	N	records
	BAAQM D Permit Condition 2780 part 3	Y		< 100 tons per year, entire facility	BAAQMD Permit Condition 2780 part 11	C	CEM

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-B (continued)
S101, S102 – BOILERS

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	BAAQM D 9-1-301	N		GLC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
	BAAQM D 9-1-302	Y		300 ppm (dry)		N	
	BAAQM D 9-1-304	Y		Sulfur content of fuel <0.5% by weight		N	
SO2	SIP 9-1-301	Y		Federal std: GLC ¹ of 140 ppb, 24-hr average, once/yr and 30 ppb, annual average State std: GLC ¹ of 40 ppb, 24-hr average, and 250 ppb, 1 hr average		N	
	BAAQM D Permit Condition 2780 part 5	Y		Sulfur content of fuel <0.12% by weight	BAAQMD Permit Condition Number 2780 part 5	P/E	Fuel certification by vendor
	BAAQM D Permit Condition 2780 part 7a	Y		Sulfur content of fuel <0.25% by weight under natural gas curtailment	BAAQMD Permit Condition 2780 part 5	P/E	Fuel certification by vendor

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-B (continued)
S101, S102 – BOILERS

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQM D Permit Condition 2780 part 10	Y		< 3087 lb/day for entire facility, except under natural gas curtailment	BAAQMD Permit Condition 2780 part 10b	P/E (during use of fuel oil only)	fuel analysis and SO2 calculation
	PSD permit, IX, F	Y		Sulfur content of fuel <0.12% by weight	PSD permit, IX, F	P/E	fuel certification by vendor
	PSD permit, IX, F			Sulfur content of fuel <0.25% by weight under natural gas curtailment	PSD permit, IX, F	P/E	fuel certification by vendor
TSP	BAAQM D Permit Condition 2780 part 6	Y		< 25 TPY TSP for S100, S101, S102	BAAQMD Permit Condition Number 2780 part 6a and 6b	P/E	initial source test, records
	BAAQM D 6-301	N		Ringelmann No. 1		N	
	BAAQM D 6-310	Y		0.15 grain/dscf @ 6% O2		N	
	SIP 6-301	Y		Ringelmann No. 1		N	
POC	BAAQM D Permit Condition 2780 part 6	Y		< 40 TPY NMHC for S100, S101, S102	BAAQMD Permit Condition 2780 part 17	C	fuel oil meter

VII. Applicable Emission limits & Compliance Monitoring Requirements (continued)

Table VII-B (continued)
S101, S102 – BOILERS

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Fuel Oil usage	PSD permit, IX, F	Y		193,000 gal/day, 24.4 million gal/yr	PSD permit, IX, E	P/E	fuel oil meter, records
	BAAQMD Permit Condition 2780 part 17	Y		0.55 million barrels/yr	BAAQMD Permit Condition 2780 part 5	P/E	records
Hours of operation	BAAQMD Permit Condition 2780 part 18	Y		Simultaneous use with the gas turbine < combined total of 28 boiler hours/day or 3950 boiler hours/year	none	P/E	records

¹ Ground Level Concentration

VIII. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally found in Section 600 of the regulation. The following table indicates only the test methods associated with the emission limits referenced in Section VII, Applicable Emission Limits & Compliance Monitoring Requirements, of this permit.

Table VIII

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-304	Tube Cleaning	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
BAAQMD 9-1-302	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides Integrated Sample
BAAQMD 9-1-304	Fuel Burning (Liquid and Solid Fuels)	Manual of Procedures, Volume III, Method 10, Determination of Sulfur in Fuel Oils.
BAAQMD 9-7-301.1	Performance Standard, NO _x , Gaseous Fuel	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-301.2	Performance Standard, CO, Gaseous Fuel	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-302.1	Performance Standard, NO _x , Non-Gaseous Fuel	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-302.2	Performance Standard, CO, Non-Gaseous Fuel	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-305.1	Natural Gas Curtailment Performance Standard, NO _x	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-305.2	Natural Gas Curtailment Performance Standard, CO	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling

VIII. Test Methods (continued)

Table VIII (continued)

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 9-7-306.1	Equipment Testing – Non-Gaseous Fuel NOX Performance Standard	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-306.2	Equipment Testing - Non-Gaseous Fuel CO Performance Standard	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-9-305	Emission Limits- Existing Low NOx Turbines	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-9-503.2	Deadline for Demonstration of Compliance with §9-9-301	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD Cond# 2780		
part 1	NOX Limit (basis: BACT, PSD)	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
part 3	CO control requirement and Limit (basis: BACT)	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
part 4	NOx Limit (basis: PSD, BACT)	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
part 5	Fuel oil sulfur limit (basis: BACT)	Manual of Procedures, Volume III, Method 10, Determination of Sulfur in Fuel Oils.
part 6	NMHC/TSP Limit (basis: Cumulative increase)	Manual of Procedures, Volume IV, ST-7, Non-Methane Organic Carbon Sampling, and Manual of Procedures, Volume IV, ST-15, Particulates Sampling
part 7	Natural Gas Curtailment Requirement (basis: BACT, PSD)	Manual of Procedures, Volume III, Method 10, Determination of Sulfur in Fuel Oils.

VIII. Test Methods (continued)

Table VIII (continued)

Applicable Requirement	Description of Requirement	Acceptable Test Methods
part 10	SO ₂ Limit (basis: BACT)	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides Integrated Sample
part 15	Fuel oil/NO _x limit demonstration (basis: BACT)	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
NSPS Subpart GG	Standards of Performance for Stationary Gas Turbines (1/27/82)	
60.332 (a)(1)	Performance Standard, NO _x	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (a)	SO ₂ Volumetric Emission Limit	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (b)	Fuel Sulfur Limit (gaseous fuel)	ASTM D 1072-80, Standard Method for Total Sulfur in Fuel Gases ASTM D 3031-81, Standard Test Method for Total Sulfur in Natural Gas by Hydrogenation
NSPS 40 CFR 60.8	40 CFR 60, Appendix A	EPA Method 7,-Determination of Nitrogen Oxide Emissions from Stationary Sources EPA Method 20-Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
PSD Permit		
PSD permit, part IX-C.	PSD permit, part IX-C.	EPA Method 7,-Determination of Nitrogen Oxide Emissions from Stationary Sources EPA Method 20-Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines

IX. PERMIT SHIELD

A. NON-APPLICABLE REQUIREMENTS

Pursuant to District Regulations 2-6-233 and 2-6-409.12, the federally enforceable regulations and/or standards cited in the following table[s] are not applicable to the source or group of sources identified at the top of the table[s]. Enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the regulatory and/or statutory provisions cited.

Table IX-A
S101, S102 - BOILERS

Citation	Title or Description (Reason not applicable)
NSPS Subpart D	Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971 (Boiler capacity below 250 million btu/hr)
NSPS Subpart Da	Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced After September 18, 1978 (Boiler capacity below 250 million btu/hr)
NSPS Subpart Db, 40 CFR 60.42b	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, Standard for Sulfur Dioxide (Boilers were built between 6/19/84 and 6/19/86 and are exempt from this requirement per 60.40b(b)(3))
NSPS Subpart Db, 40 CFR 60.43b	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, Standard for Particulate (Boilers were built between 6/19/84 and 6/19/86 and are exempt from this requirement per 60.40b(b)(3))
NSPS Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (Boilers built before 6/9/89 and not modified or reconstructed since 6/9/89)

IX. Permit Shield (continued)

A. Non-Applicable Requirements (continued)

Table IX-B
S-103, No 2 Distillate Oil Storage Tank

Citation	Title or Description (Reason not applicable)
NSPS Subpart K	Subpart K-Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 (Storage tank contains No 2 fuel oil)
Subpart Ka-	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984 (Storage tank contains No 2 fuel oil)
BAAQMD Regulation 8, Rule 5	Storage of Organic Liquids (Section 8-5-117: Exemption, Low Vapor Pressure)

IX. Permit Shield (continued)

B. SUBSUMED REQUIREMENTS

Pursuant to District Regulations 2-6-233 and 2-6-409.12, as of the date this permit is issued, the federally enforceable “subsumed” regulations and/or standards cited in the following table are not applicable to the source or group of sources identified at the top of the table. The District has determined that compliance with the “streamlined” requirements listed below and elsewhere in this permit will assure compliance with the substantive requirements of the “subsumed” regulations and/or standards. Enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the “subsumed” regulatory and/or statutory provisions cited.

Table IX-A
S100, Turbine

Subsumed Requirement Citation	Title or Description	Streamlined Requirements	Title or Description
NSPS Subpart GG	Standards of Performance for Stationary Gas Turbines		
60.334 (a)	Fuel-to-water monitoring	PSD permit	Part IX, E: Continuous Emission Monitoring
60.334 (b)(1)	Fuel Sulfur monitoring (fuel oil)	PSD permit	Part IX, F: Fuel Usage and Sulfur Content
60.334 (b)(1)	Fuel Nitrogen Content monitoring (fuel oil)	PSD permit	Part IX, E: Continuous Emission Monitoring
60.334 (b)(2)	Fuel Sulfur and Nitrogen Content monitoring (natural gas)	Title V Condition 14299	Requirement for use of PUC quality natural gas
60.334 (c)(1)	Periods of excess emissions, NO _x	PSD permit	Part IX, E: Continuous Emission Monitoring
60.334 (c)(2)	Periods of excess emissions, SO ₂ , fuel oil	PSD permit	Part IX, F: Fuel Usage and Sulfur Content
60.334 (c)(2)	Periods of excess emissions, SO ₂ , natural gas	Title V Condition 14299	Requirement for use of PUC quality natural gas

IX. Permit Shield (continued)

Table IX-B
S101-102, Boilers

Subsumed Requirement Citation	Title or Description	Streamlined Requirements	Title or Description
NSPS Subpart A	General Provisions		
60.7(c)	Continuous Monitoring Systems	PSD Permit	Part VII, E: Continuous Emission Monitoring
60.7(d)	Summary Report Forms	PSD Permit	Part VII, E: Continuous Emission Monitoring
60.7(e)	Records	PSD Permit	Part VII, E: Continuous Emission Monitoring
60.7(f)	Notification to Local Agency	PSD Permit	Part VII, E: Continuous Emission Monitoring
60.7(g)	Special Provisions	PSD Permit	Part VII, E: Continuous Emission Monitoring
60.13	Monitoring Requirements	PSD Permit	Part VII, E: Continuous Emission Monitoring
NSPS Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units		
60.46b	Compliance and performance test methods and procedures for particulate matter and nitrogen oxides	BACT monitoring	BAAQMD Permit condition #2780, Parts 11 and 14
60.48b	Emission monitoring for particulate matter and nitrogen oxides	BACT monitoring	BAAQMD Permit condition #2780, Parts 11 and 14
60.49b	Reporting and recordkeeping requirements	BACT monitoring	BAAQMD Permit condition #2780, Parts 11 and 14

X. GLOSSARY

BAAQMD

Bay Area Air Quality Management District

BACT

Best Available Control Technology

CAA

The federal Clean Air Act

CAAQS

California Ambient Air Quality Standards

CEQA

California Environmental Quality Act

CFR

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

CO

Carbon Monoxide

Cumulative Increase

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

District

The Bay Area Air Quality Management District

EPA

The federal Environmental Protection Agency.

Excluded

Not subject to any District Regulations.

X. Glossary

Federally Enforceable, FE

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60, (NSPS), Part 61, (NESHAPS), Part 63 (HAP), and Part 72 (Permits Regulation, Acid Rain), and also including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

HAP

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by both 40 CFR Part 63, and District Regulation 2, Rule 5.

Major Facility

A facility with potential emissions of regulated air pollutants greater than or equal to 100 tons per year, greater than or equal to 10 tons per year of any single hazardous air pollutant, and/or greater than or equal to 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity as determined by the EPA administrator.

MFR

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Act and implemented by District Regulation 2, Rule 6.

MOP

The District's Manual of Procedures.

NAAQS

National Ambient Air Quality Standards

NESHAPS

National Emission Standards for Hazardous Air Pollutants. Contained in 40 CFR Part 61.

NMHC

Non-methane Hydrocarbons

NO_x

Oxides of nitrogen.

NSPS

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Act, and implemented by both 40 CFR Part 60 and District Regulation 10.

X. Glossary

NSR

New Source Review. A federal program for preconstruction review and permitting of new and modified sources of air pollutants for which the District is classified "non-attainment". Mandated by Title I of the Clean Air Act and implemented by 40 CFR Parts 51 and 52 as well as District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

Offset Requirement

A New Source Review requirement to provide federally enforceable emission offsets at a specified ratio for the emissions from a new or modified source and any pre-existing cumulative increase minus any onsite contemporaneous emission reduction credits. Applies to emissions of POC, NO_x, PM₁₀, and SO₂.

Phase II Acid Rain Facility

A facility that generates electricity for sale through fossil-fuel combustion and by virtue of certain other characteristics (defined in Regulation 2, Rule 6) is subject to Titles IV and V of the Clean Air Act.

POC

Precursor Organic Compounds

PM

Total Particulate Matter

PM₁₀

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

PSD

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

SIP

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

SO₂

X. Glossary

Sulfur dioxide

Title V

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

VOC

Volatile Organic Compounds

Units of Measure:

bhp	=	brake-horsepower
btu	=	British Thermal Unit
g	=	grams
gal	=	gallon
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m ²	=	square meter
min	=	minute
mm	=	million
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year

XI. APPENDIX A - APPLICABLE STATE IMPLEMENTATION PLAN

See Attachments